

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

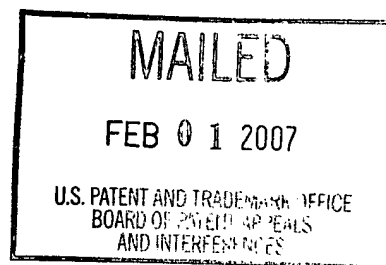
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex Parte THOMAS L. MIKES and LIAN XING

Appeal No. 2006- 2172
Application No. 10/685,270

ON BRIEF



Before RUGGIERO, BARRY, and HOMERE, Administrative Patent Judges.

RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 1-9, which are all of the claims pending in this application.

The claimed invention relates to the multiplexing or demultiplexing of optical signals in which an optical fiber interface is coupled to a concentric spectrometer. According to Appellants (specification, pages 2 and 3), the use of a concentric speedometer subjects the optical signals to a relatively low amount of optical aberration which aids in the reduction of the spreading of the channels within an optical network.

Appeal No. 2006-2172
Application No. 10/685,270

Claim 1 is illustrative of the invention and reads as follows:

1. A system for multiplexing or demultiplexing optical signals, comprising:

an optical fiber interface; and

a concentric spectrometer coupled to the optical fiber interface.

The Examiner relies on the following prior art:

Dragone et al. (Dragone)	6,263,127	Jul. 17, 2001
Xiang et al. (Xiang)	6,266,140	Jul. 24, 2001

Claims 1-9, all of the appealed claims, stand finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Dragone in view of Xiang.

Rather than reiterate the arguments of Appellants and the Examiner, reference is made to the Briefs¹ and Answer for the respective details.

OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the Examiner and the evidence of obviousness relied upon by the Examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellants' arguments set forth in the Briefs along with the Examiner's rationale in support of the rejection and arguments in rebuttal set forth in the Examiner's Answer.

¹ The Appeal Brief was filed November 28, 2005. In response to the Examiner's Answer mailed February 22, 2006, a Reply Brief was filed April 18, 2006, which was acknowledged and entered by the Examiner as indicated in the communication dated May 15, 2006.

Appeal No. 2006-2172
Application No. 10/685,270

It is our view, after consideration of the record before us, that the evidence relied upon and the level of skill in the particular art would not have suggested to one of ordinary skill in the art the invention as set forth in claims 1-9. Accordingly, we reverse.

We also use our authority under 37 CFR § 41.50(b) to enter a new ground of rejection of claims 6 and 7. The basis for these conclusions will be set forth in detail below.

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). The Examiner must articulate reasons for the Examiner's decision. In re Lee, 277 F.3d 1338, 1342, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002). The Examiner cannot simply reach conclusions based on the examiner's own understanding or experience – or on his or her assessment of what would be basic knowledge or common sense. Rather, the Examiner must point to some concrete evidence in the record in support of these findings. In re Zurko, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). Thus the Examiner must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the Examiner's conclusion. These showings by the Examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). If that burden is met, the burden then shifts to the applicant to overcome the prima facie case with argument

and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and the relative persuasiveness of the arguments. See Id.; In re Hedges, 783 F.2d 1038, 1039, 228 USPQ 685, 686 (Fed. Cir. 1986); In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984); and In re Rinehart, 531 F.2d 1048, 1052, 189 USPQ 143, 147 (CCPA 1976).

With respect to the Examiner's 35 U.S.C. § 103(a) rejection of appealed independent claims 1, 6, and 8 based on the combination of Dragone and Xiang, Appellants assert (Brief, pages 5-9; Reply Brief, pages 2-5) that the Examiner has failed to set forth a prima facie case of obviousness since proper motivation for the proposed combination of references has not been established. After reviewing the arguments of record from Appellants and the Examiner, we are in general agreement with Appellants' position as stated in the Briefs.

The Examiner proposes (Answer, pages 3 and 4) to modify the device of Dragone by substituting the diffraction grating concentric spectrometer structure taught by Xiang for the diffraction grating spectrometer structure disclosed by Dragone. In our view, however, the system described by Xiang has little relevance to the optical data transmission system of Dragone and, at best, provides only a disclosure that concentric spectrometers may be known in the art. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

Our review of the disclosure of Xiang reveals that, while Xiang may use a concentric spectrometer, the disclosure of Xiang is directed to the dispersing of spectra from an image of a scene. The problem addressed by Xiang, however, i.e., the need to prevent the overlapping of adjacent spectral images, referred to by Xiang as a “keystoning” effect resulting in a loss of resolution, does not exist in the optical communication system of Dragone. While the Examiner attempts (Answer, page 4) to equate the “crosstalk” reduction problem addressed by Dragone with the “keystoning” problem addressed by Xiang, we find no evidence forthcoming from the Examiner that would support the conclusion that the ordinarily skilled artisan would recognize and appreciate the correspondence between “crosstalk” reduction and “keystoning effect” reduction.

The Examiner must not only make requisite findings, based on the evidence of record, but must also explain the reasoning by which the findings are deemed to support the asserted conclusion. See In re Lee, 277 F.3d at 1344, 61 USPQ2d at 1434. In our view, given the disparity of problems addressed by the applied prior art references, and the differing solutions proposed by them, any attempt to combine them in the manner proposed by the Examiner could only come from Appellants’ own disclosure and not from any teaching or suggestion in the references themselves.

In view of the above discussion, since we are of the opinion that the proposed combination of the Dragone and Xiang references set forth by the Examiner does not support the obviousness rejection, we do not sustain the rejection of independent claims 1, 6, and 8, nor of claims 2-5, 7, and 9 dependent thereon.

Rejection under 37 CFR § 41.50(b)

We make the following new ground of rejection using our authority under 37 CFR § 41.50(b). Claims 6 and 7 are rejected under 35 U.S.C. § 102(b) as being anticipated by Xiang. Xiang discloses the demultiplexing of optical signals in which a concentric spectrometer 110 including an aberration-corrected diffraction grating 100 receives a multi-wavelength optical signal (12, 20, 30, Figure 5). This multi-wavelength optical signal is separated into its constituent parts using the concentric spectrometer 110 (Xiang, column 3, lines 15-33) with the dispersed spectra signals being applied to CCD detector 50.

We further note that, although the Xiang reference has been applied only against appealed claims 6 and 7, this is not to be taken as an indication of the patentability of claims 1-5, 8, and 9. In any resumption of the prosecution of this application before the Examiner, the Examiner should consider the applicability of the applied prior art as well as the other prior art of record and any other discovered prior art, to claims 1-5, 8, and 9.

CONCLUSION

The Examiner's rejection of claims 1-9 under 35 U.S.C. § 103(a) is reversed. A new rejection of claims 6 and 7 under 35 U.S.C. § 102(b) is set forth herein.

This decision contains a new ground of rejection pursuant to 37 CFR § 41.50(b) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)). 37 CFR § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

Appeal No. 2006-2172
Application No. 10/685,270


37 CFR § 41.50(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

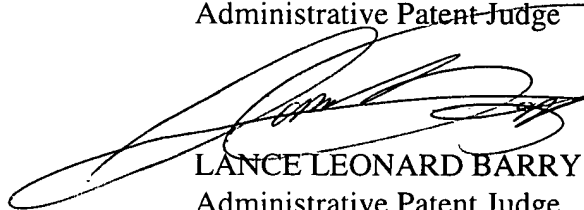
(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a). See 37 CFR § 1.136(a)(1)(iv).

REVERSED – 37 CFR § 41.50(b)


JOSEPH F. RUGGIERO
Administrative Patent Judge


LANCE LEONARD BARRY
Administrative Patent Judge


JEAN R. HOMERE
Administrative Patent Judge

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Appeal No. 2006-2172
Application No. 10/685,270

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